

INSTRUMENT PREPARED BY
VIRGINIA GAS AND OIL

ORDER RECORDED UNDER CODE
OF VIRGINIA SECTION 45.1-361.26

VIRGINIA:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: RANGE RESOURCES - PMI

VIRGINIA GAS AND
OIL BOARD
VGOB DOCKET NO.:
89-0126-0009-85

RELIEF SOUGHT:

MODIFICATION OF THE OGCB NORA GAS
FIELD RULES ORDER, ENTERED MARCH 26,
1989, AS AMENDED, TO ALLOW MORE THAN
ONE COALBED GAS WELL TO BE DRILLED IN
THE UNITS IDENTIFIED ON EXHIBIT "A" HERETO

LEGAL DESCRIPTION:

DRILLING UNITS: 55BB, 55BC, 57BD, 58BC, 59BB,
59BC, 60AX, 60BC, 61AX, 62AZ, 62BA, 62BD, 63BD,
66BE, 69BG, 69BH, 70BG, 70BH, 71BG, 71BH, 72BG,
LOCATED IN DICKENSON COUNTY, VIRGINIA;
SEE ANNEXED EXHIBIT "H2"

REPORT OF THE BOARD FINDINGS AND ORDER

1. Hearing Date and Place: This matter came on for hearing before the Virginia Gas and Oil Board (hereinafter "Board") at 9:00 a.m. on November 17, 2015 at the Conference Center at the Russell County Office Facility, Lebanon, Virginia.

2. Appearances: James E. Kaiser of Wilhoit and Kaiser, appeared for the Applicant; and Paul Kugelman, Jr., Senior Assistant Attorney General was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code §§45.1-361.1 et seq., as amended, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by the Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner, or in the case of conflicting claims to the ownership of the coalbed

methane gas, each person identified by Applicant as a potential owner of the coalbed methane gas underlying the area described at paragraph 7.h below and in **Exhibit "B"** attached hereto; and (2) has given notice to all parties so identified (hereinafter sometimes "person(s)" whether referring to individuals, corporation, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities) and entitled by §§ 45.1-361.19 and 45.1-361.20, Virginia Code, as amended, to notice of the Application, and (3) that the persons listed in the Notice of Hearing are the persons so identified by the Applicant. Further, the Board has caused notice of this hearing to be published as required by § 45.1-361.19.B., Virginia Code, as amended. Whereupon, the Board hereby finds that the notices given satisfy all statutory requirements, Board rule requirements and the minimum standards of State due process.

4. Amendments and Dismissals: **None.**

5. Relief Requested: (1) Modification of the Nora Gas Field Rules to allow more than one coalbed methane gas well to be drilled within each of the Nora Field Drilling Units identified above and in **Exhibit "H2"** attached hereto; and (2) for an administrative order providing that additional well permits may be issued in the Nora Field after the Application is filed and while it is pending.

6. Relief Granted: Available data and the evidence adduced at the hearing support Applicant's position that the production from the pool underlying the Nora Coal Bed Gas Field Drilling Units in question would be enhanced and benefit from in-field drilling; accordingly,

a. With regard to the Drilling Units described above and in **Exhibit "H2"** hereto, the Nora Coal Bed Gas Field Rules Order, OCGB order entered of March 26, 1989, is hereby amended to allow the Board's Designated Unit Operator in Drilling Units pooled by Board Order and the Well Operator/Permittee in voluntary Drilling Units to drill a total of two (2) wells, said total to include any previously permitted well(s), within the units affected by the Application and this Order;

b. In the event that an additional coalbed methane gas well(s) permitted and drilled after the entry of this order is located within the drilling window(s) of a Nora Coal Bed Gas Field Drilling Unit affected by this order, the production therefrom shall be solely attributed to and allocated to the Nora Drilling Unit within which the wells are located.

c. In the event a second well is proposed that is to be located outside the drilling window of any Nora Unit affected by this order and a permit application is submitted to the Division of Gas and Oil seeking such location exception, the Inspector shall assess the permit as follows:

- (i) If a 58 acre square with the proposed well at its center lies entirely within Nora Drilling Units which are voluntary in nature and are not

subject to existing pooling order, the Inspector may grant or deny the location exception on a case-by-case basis according to standard procedures and provisions of the Nora Order which allow wells to be drilled outside the drilling windows; or

(ii) If a 58 acre square with the proposed well at its center lies entirely or partially within any Nora Drilling Unit(s) which is subject to existing pooling orders, the Inspector shall refer the permit application to the Board for its recommendations concerning correlative rights considerations, modification of pooling orders, and escrow provisions. Alternatively, the Unit Operator may present a pooling proposal directly to the Board prior to filing a permit application. No permit under this paragraph (ii) shall be issued until the Board has acted on the matter.

7. Special Findings:

- a. Applicant's proposed field rule modification is not an unreasonable or arbitrary exercise of the owner's right to explore for or produce gas;
- b. The Applicant's proposal would not unreasonably interfere with the present or future mining of coal or other minerals;
- c. The acreage to be embraced in the Drilling Units affected by and/or created by this Modification Order shall be as set forth above and in **Exhibit "H2"** attached hereto.
- d. The formations subject to this Modification Order are described in the OGCB Order entered March 26, 1989, as amended.
- e. The boundaries of the Drilling Units are the same as heretofore established by the OGCB Order entered March 26, 1989, as amended.
- f. Unit Operator's production simulations indicate that drilling of an additional well in each Unit could facilitate the recovery of an additional 250,000 MCF of gas per Unit within ten (10) years of drilling.
- g. The boundaries of any Drilling Units created subsequent to this Modification Order shall be according to paragraph 6.c.ii. above and as defined by Board action specific to individual units.
- h. The acreage subject to this Modification Order is depicted in **Exhibit "H2"** attached hereto:
- i. Having considered the evidence presented, the Board found no reason to establish any allowable production rates for the wells contemplated by this

Modification Order;

j. Except as herein specifically modified, the proposed Drilling Units in Exhibit "H2" shall be developed and produced in compliance with the OGCB Order entered on March 26, 1989 regarding the Nora Gas Field Rules, as amended.

k. This Modification Order shall be effective as of the date of the hearing, to wit: **November 17, 2015.**

8. Conclusion: The relief granted hereby will assist in enhancing production from existing wells, will assist in more efficiently recovering coalbed methane gas from the area in question, prevent waste by more effectively extracting the resource, and will continue to protect the correlative rights of all owners and claimants. Therefore, the relief and all terms and provisions set forth above be and are hereby granted and IT IS SO ORDERED.

9. Effective Date: **November 17, 2015.**

DONE AND EXECUTED this 4 day of December, 2015 by a majority of the Virginia Gas and Oil Board.



Chairman, Bradley C. Lambert

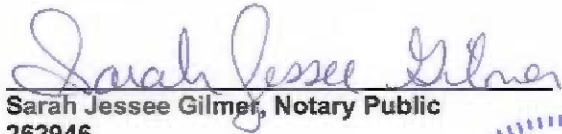
DONE AND PERFORMED this 4 day of December, 2015 by Order of the Virginia Gas and Oil Board.



Rick Cooper
Principal Executive to the
staff, Virginia Gas and Oil Board

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 4th day of December, 2015, personally before me a notary public in and for the Commonwealth of Virginia, appeared Bradley C. Lambert, being duly sworn did depose and say that he is the Chairman of the Virginia Gas and Oil Board and appeared Rick Cooper, being duly sworn did depose and say that he is Principal Executive to the staff of the Virginia Gas and Oil Board, that they executed the same and was authorized to do so.


Sarah Jessee Gilmer, Notary Public
262946

My Commission expires: July 31, 2017



53A1	54A1	55A1	56A1	57A1	58A1	59A1	60A1	61A1	62A1	63A1	64A1	65A1	66A1	67A1	68A1	69A1	70A1	71A1	72A1	73A1	74A1
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Exhibit "B"
VGOB: 89-0126-0009-85

Dickenson-Russell Coal Company
Maxxim Shared Services, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

ALPHA Land & Reserves, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

WBRD LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

ACIN LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

Jennifer B. Osborne
792 E. Meadows Rd.
Moravian Falls, NC 28654

Kimberly Beshears
728 Haynes Road
Hays, NC 28635

Benjamin Harrison and Ethel Beshears
2163 Big Ivy Road
Pulear, NC 28665

Susan B. Odom & Terry Odom
4007 Hazel Lane
Greensboro, NC 27408

Bobby Kenneth White
1003 Boone Trail
North Wilkesboro, NC 28659

Exhibit "B"
VGOB: 89-0126-0009-85

Jessica & Allyn Morrow
428 Will Faw Rd.
Millers Creek, NC 28651

Clarence & Debra J Truax, JR
238 Bugle Hill Lane
Lurray, VA 22835

BS Powers Heirs:
Elizabeth Ann Powers Branham
1972 Rose Ridge
Clintwood, VA 24228

Darrell Wayne Powers
PO Box 199
Clinchco, VA 24226

Gaynell & Clair Sykes
4845 Glen Ivy Lane SW, Apt. 318
Roanoke, VA 24018

Jerry Wayne Powers
337 Whispering Woods Drive
Bluff City, TN 27618

Rebecca Powers Sydnor
975 Dixie Road
Greenville, TN 37743

Dickenson County School Board
PO Box 1127
Clintwood, VA 24228

Theresa & Richard Scholz
6824 Bluegrass Drive
Clarkston, MI 48346

Wayne & Katherine Grant
P.O. Box 2015
Clintwood, VA 24228

Exhibit "B"
VGOB: 89-0126-0009-85

Russell & Lora Sutherland
192 Oliver Lane
Clintwood, VA 24228

Joseph R. & Deena McAfee
3103 Frying Pan Road
Birchleaf, VA 24220

Ricky Ray Edwards
4014 Frying Pan Road
Clintwood, VA 24228

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Map View of Nora CBM Field Increased Density Drilling Previously Board Approved

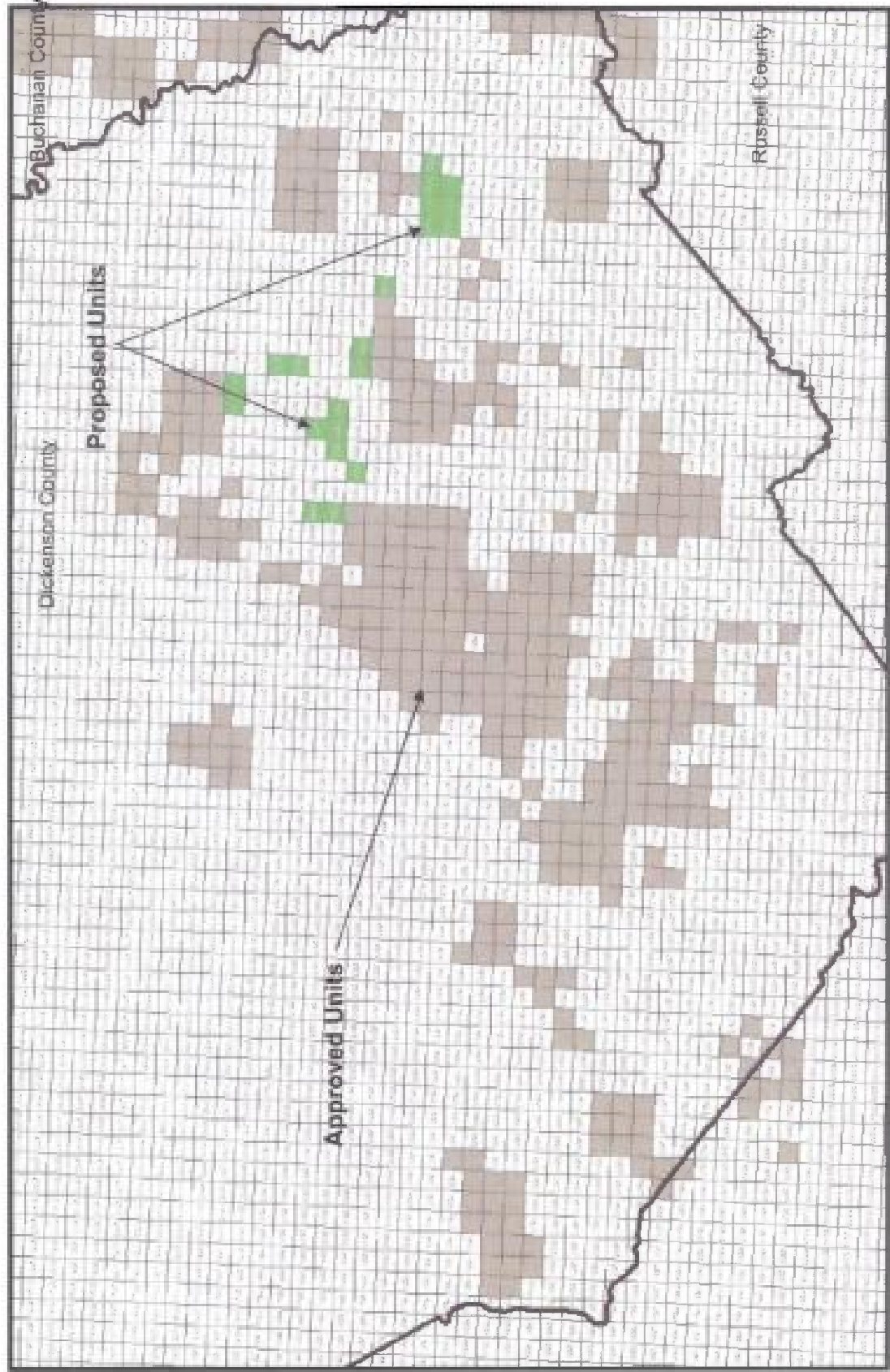


EXHIBIT K (pg 2)

Map View of Nora CBM Field Increased Density Drilling Completed to Date

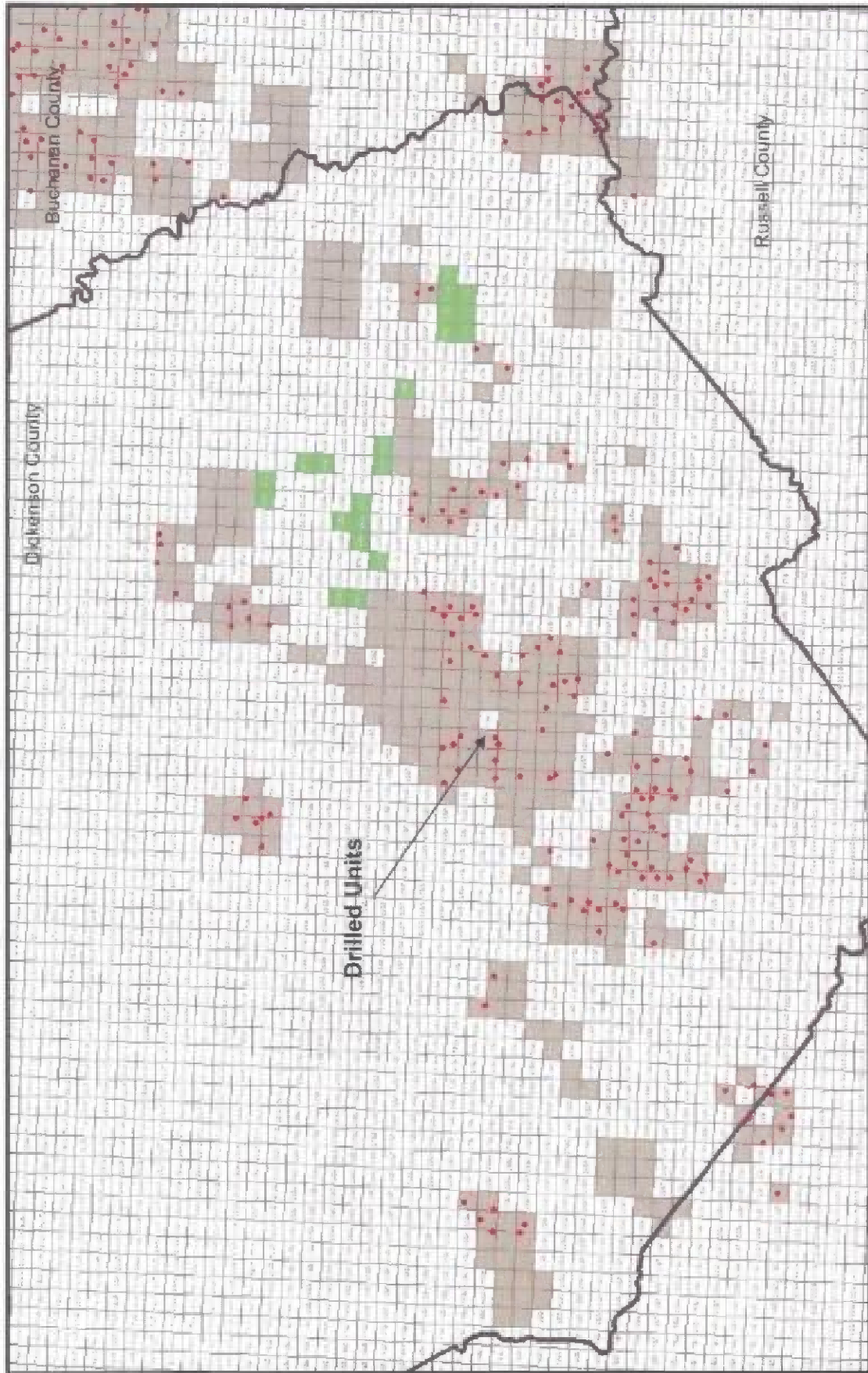


EXHIBIT K (pg 3)

Close up - Map View of Nora Increased Density Areas

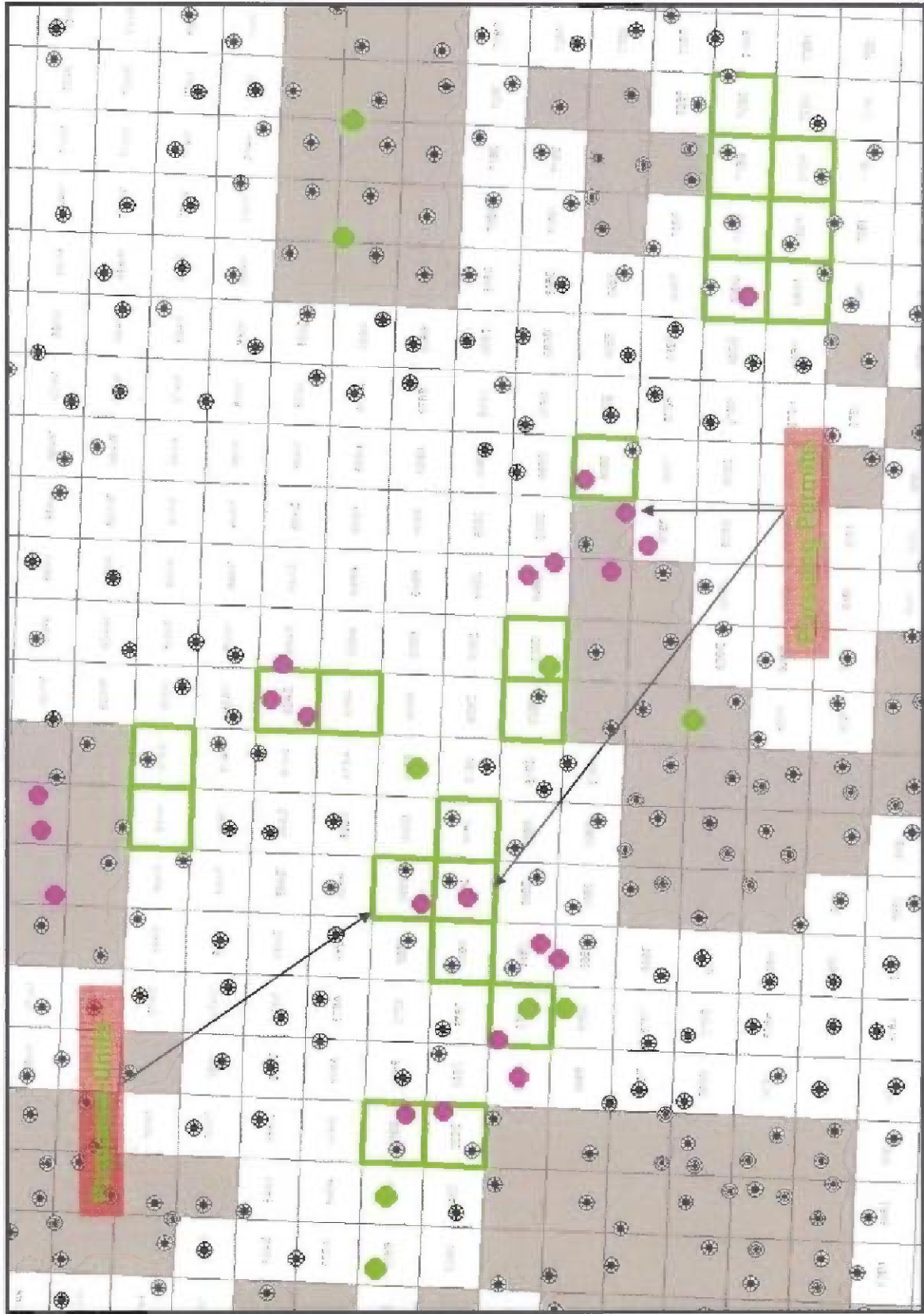
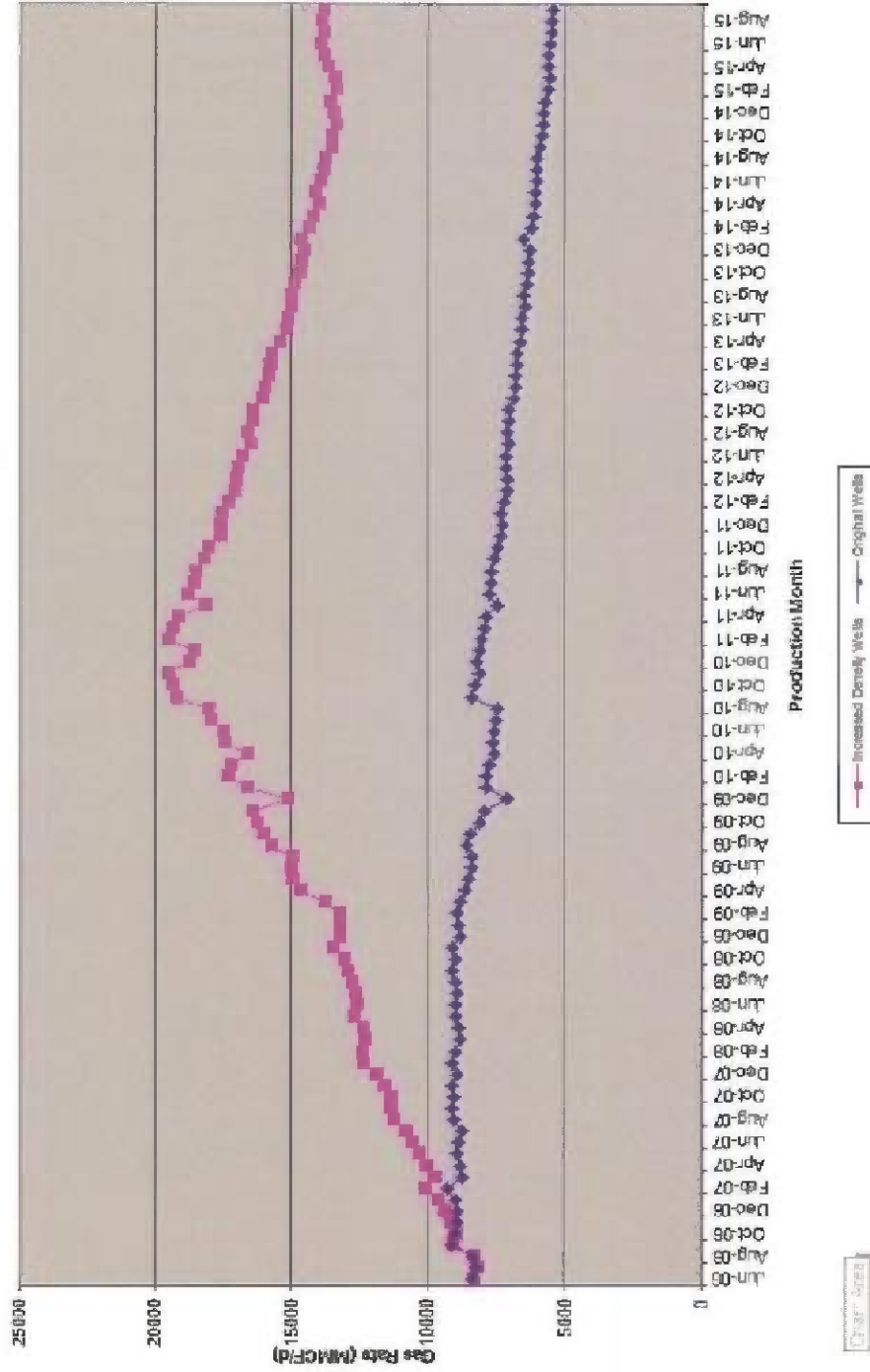


EXHIBIT K (pg 4)

Increased Density Drilling Nora Field Thru 09-2015



Benefits of Increased Density Drilling

- Increase fracturing network promoting gas flow at low pressure
- Decrease de-watering time frame
- Increase recovery factor of reservoir
- Reservoir production achieved faster and more economical
- No significant negative impact to 1st well production, generally see improvement in existing production

Infill drilling from 2006 – 2015
Production represents 196 units

EXHIBIT K (pg5)

Summary of Increased Density Drilling

- Working Interest Owners, Royalty Owners, and the State will benefit by maximizing production
- Promote conservation of the gas resource and prevent waste by more effectively extracting the resource
- Allow for shared facilities such as roads, pipelines, etc. to help minimize environmental impact
- No correlative rights issues within proposed units

DB 531 PG751

EXHIBIT K (pg 6)

Map View of Area Coal Mine Activity

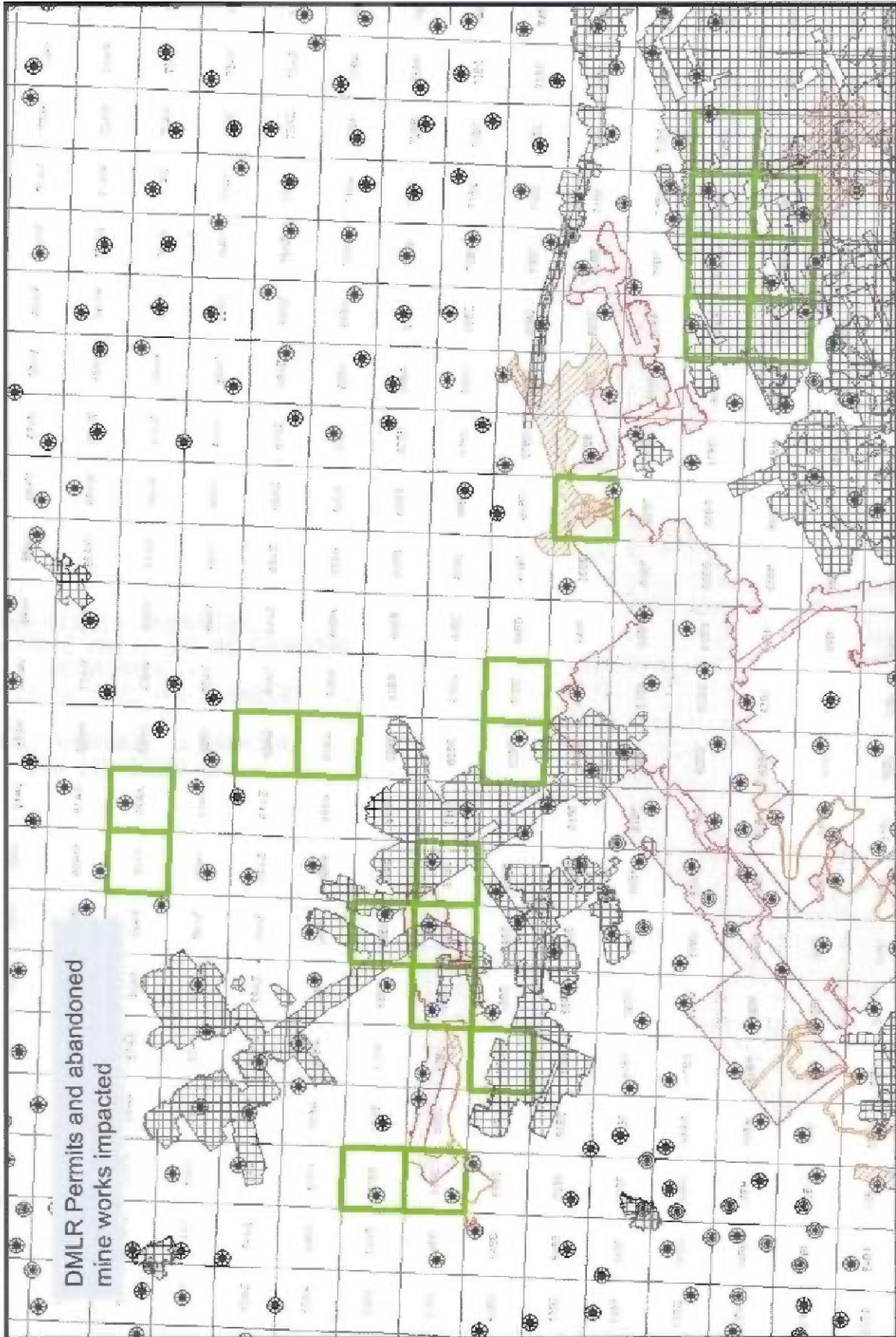


EXHIBIT K (pg 7)

INSTRUMENT RESOLUT-80
RECORDED IN THE CLERK'S OFFICE OF
JULY 2008 ON
DECEMBER 24, 2013 AT 11:11AM
RICHARD A. DIMMICK: CLERK
RECORDED BY: UJB